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Fibrous dysplasia is a syndrome characterized by dysplastic fibro-osseous skeletal changes. The syndrome has been described in the literature under a number of different terms including osteodystrophia fibrosa, polyostotic osteitis fibrosa, regional fibrocystic disease, osteitis fibrosa cystica, and fibrous dysplasia. The disease has been reported in dogs (1, 6, 7), horses (3, 9), swine (4), monkeys (2, 8), and man (5).

This report concerns a 4½ year old male spider monkey. The animal was presented with bilateral enlargement of the maxilla and slight enlargement of the mandible. These enlargements had been

Figure 1. A 4½ year old spider monkey showing a large proliferative lesion involving the mouth.

Figure 2. The head of the monkey in figure 1 showing bilateral thickening of the maxilla.

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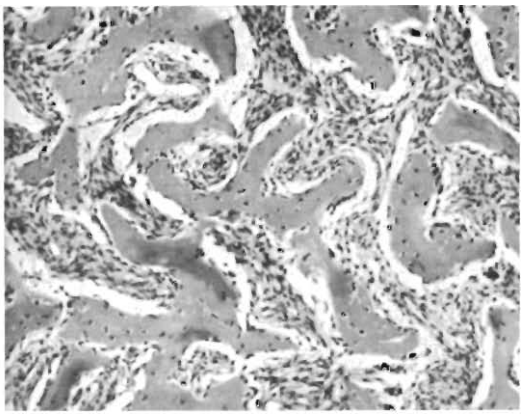

Figure 3. A section from the maxilla showing dense fibrous tissue trabeculated with poorly calcified bone. H & E X100.

present for 3 months. On clinical observation the monkey was unable to close its mouth and hemorrhage occurred from traumatized areas. The teeth were loosely embedded and the proliferative mass encroached on the nasal cavity.

Microscopically the affected tissue was filled with moderately dense fibrous tissue trabeculated with poorly calcified bone. Inflammatory cells were absent and vascularity was at a minimum. Anaplasia or mitotic figures were not seen.

The cause of the condition has not been clarified. Nutritional, genetic, and hormonal causes have been suggested. Low calcium, high phosphorous diets (9) and hyperparathyroidism (7) have been shown to produce similar syndromes in various animals.

REFERENCES

1. **Brodey, R. S.: Renal Osteitis Fibrosa Cystica in a Wire Haired Fox Terrier. J.A.V.M.A., 124, (1954): 275.**
2. **Cordy, D. R.: Osteodystrophia Fibrosa Accompanied by Visceral Accumulation of Lead, Cornell Vet., 47, (1957): 480.**
3. **Groenewald, J. W.: Osteofibrosis in Equines. Onderstepoort Jour., 9, (1937): 601.**
4. **Kowalczyk, T., Anderson, R. A., Simon, J., and Baker, E. D.: Fibrous Dysplasia of the Bone in Swine, J.A.V.M.A., 133, (1958): 601.**
5. **Lichtenstein, L. and Jaffe, H. L.: Fibrous Dysplasia of Bone. Arch. Path., 33, (1942): 777.**
6. **Nielson, S. W. and McSherry, B. J.: Renal Hyperparathyroidism (Rubber Jaw Syndrome) in a Dog. J.A.V.M.A., 124 (1954): 270.**
7. **Platt, H.: Canine Chronic Nephritis III. The Skeletal Syndrome in "Rubber Jaw". J. Comp. Path. and Terap., 61, (1951): 197.**
8. **Smith, H. A., and Jones, T. C.: Veterinary Pathology, 2nd ed. Lea and Febiger, Philadelphia, 1961.**
9. **Thieler, A.: The Osteodystrophic Diseases of Domestic Animals, Vet. J., 90, (1934): 183.**